Mini-DVI-WP Series

Wall Plate Miniature Multimode Fiber Optic DVI Transmission System

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SAFETY INSTRUCTIONS AND COMPLIANCE DECLARATIONS

PLEASE OBSERVE THE FOLLOWING SAFETY PRECAUTIONS AS OUR PRODUCTS CONTAIN

CLASS I LASER PRODUCTS

WARNING

Do not disconnect the fiber optic connector while the unit is powered up. Exposure to laser radiation is possible when the laser fiber optic connector is disconnected while the unit is powered up.

Although the fiber optic connectors in this product emit only Class 1 energy that is below the levels considered to be hazardous, one should never stare directly into a fiber optic connector or an unconnected fiber end unless one can be certain that no exposure to laser energy could occur.

CAUTION

This manual is intended for use by trained service personnel. The use of controls, making adjustments, or performing operations other than those specified may result in hazardous radiation exposure.

The following label or equivalent is located on the surface of laser products. This label indicates that the product is classified as a CLASS 1 LASER PRODUCT.

Class 1 Laser Product
Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001

SURGE PROTECTION DEVICE RECOMMENDED

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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1.0 PRODUCT DESCRIPTION

The Mini-DVI-WP Series is a high performance, low cost, miniature, Fiber Optic DVI extender system designed specifically for wall plate installation. It carries one (1) unidirectional DVI video, together with HDCP/DDC, through one (1) multimode fiber. This unique fiber optic transmission system lets your digital flat panel display extend up to 400m at WUXGA (1920x1200 @ 60Hz) resolution.

No user adjustment is required for the Mini-DVI-WP system due to the use of advanced digital fiber optic transmission system technology with zero compression and zero bit reduction. This allows for a quick and easy setup, offering trouble-free operation for many years to come. The Mini-DVI-WP supports video resolution up to WUXGA (1920 x 1200 @ 60 Hz) or 1080p @ 60Hz HDTV video resolution. It supports in-wall +12VDC powering option.

Figure 1-1 illustrates the TX and RX view of the Mini-DVI-WP model.

Figure 1-1
Mini-DVI-WP TX and RX View

2.0 SETUP

The BCI Mini-DVI-WP Series units are used in pairs. One Mini-DVI-WP-T transmitter unit is located at the near-end and connected through one optical fiber, to the Mini-DVI-WP-R receiver located at the far-end of the link. Figure 2-1 depicts a typical installation for the Mini-DVI-WP-T/R.

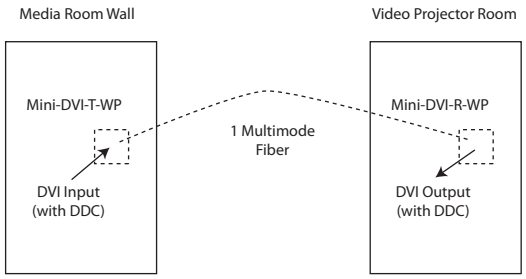

Figure 2-1
Mini-DVI-WP Setup

2.1 Mounting

Before installing the units into your wall plate housing, make sure there is enough space to pull and connect both the electrical and optical cables without stressing them beyond the manufacturer's limitations (also known as the minimum bend radius).

2.2 Cabling and Connectors

In order to setup the BCI Mini-DVI-WP properly, make sure to observe the following instructions when installing the proper cables. The Mini-DVI-WP requires two parts to the cabling setup, the electrical and the optical.

2.2.1 DVI Video Interface

Use the following instructions to properly connect your component video as illustrated in Figure 2-2.

1. Directly connect the Mini-DVI-WP-T (Transmitter) unit's DVI video input port to the user's DVI video source.
2. For the receive unit, directly connect the Mini-DVI-WP-R (Receiver) unit's DVI video output ports to the user's DVI video receivers.

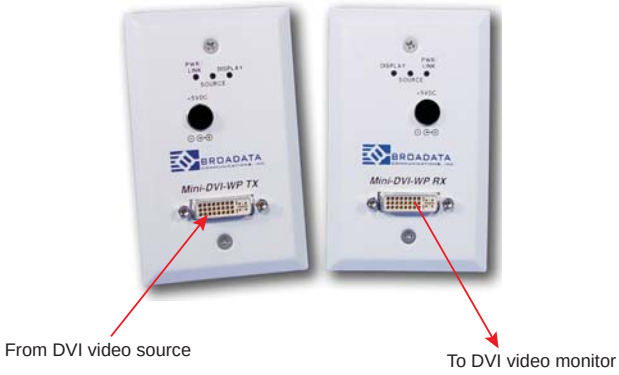

Figure 2-2
Electrical Connection

2.2.2 Optical Fiber Connection

Most cable manufacturers identify individual fibers in the fiber cable. Select an appropriate terminated fiber. Each unit's optical ports in the system are specified for use with SC-connectorized Multimode (62.5/125 micron) fiber. Follow the ensuing instructions on installing and connecting the fiber optic links:

1. Ensure the power is off before proceeding with the fiber optic cable installation.

2. Prior to connecting the fiber optic cables, remove and save the dust caps from the optical port of both the Mini-DVI-WP units. Clean the fiber optic connector and use a lint-free cloth dampened with alcohol to thoroughly wipe the side and end of the ferrule.

3. Connect the fiber from one unit to the other connecting the near end Mini-DVI-WP-T unit's optical port to the far end of the Mini-DVI-WP-R unit's optical RX port as illustrated in Figure 2-3.

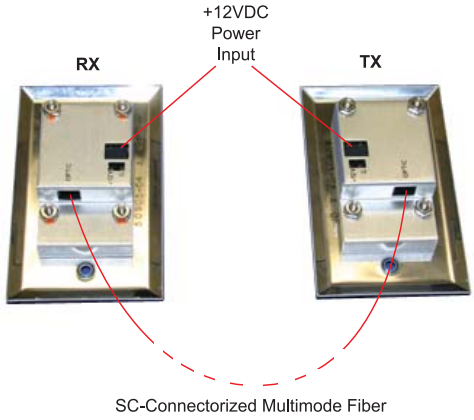

Figure 2-3
Fiber Optic Connection

2.3 DC Power Connection

The standard option to connect a power source is a +12VDC, which is used when power source is farther away (see Figure 2-3). In order to make sure that you have a proper installation, please observe the following:

1. Your AC jack has power.
2. The 12VDC power supply is working.
3. Your electrical system has proper grounding (this ensures that your power supply does not suffer from voltage variations).
4. **Power Surge Protection. This is optional**, but highly recommended. A UPS system provides voltage regularity as well as prevents spikes from occurring, thus protecting your Mini-DVI-WP from sensitive voltage conditions.

The Mini-DVI-WP derives power from an external 12VDC power supply. This power supply is a wall mounted AC/DC adapter, 100-240 VAC, 50-60 Hz, at or 0.5A.

If you have any problems or concerns, regarding the installation, make sure that you have taken the proper steps to ensure a proper power connection. Otherwise, feel free to contact us for any questions you may have.

2.4 In-Wall Power/Fiber Wiring Instruction

The in-wall power/fiber installation for the Mini-DVI-WP wall plate must confirm national and local electrical codes, e.g., UL junction boxes shall be used and DC power source shall not exceed product rated range (+12VDC @ 0.5A). Follow the following steps for power/fiber installation:

1. As shown in Figure 2-4, feed both fiber and power cables through the opening of the wall box, and secure the cables with cable clamps to provide strain relief.

2. Terminated fiber with SC optical connector to be directly plugged into the SC connector port of the Mini-DVI-WP units (see Figure 2-3).

3. Before connecting power wire to the Mini-DVI-WP unit, **make sure power supply is off**. Prepare the Positive (+12V) and Negative (GND) tip of the power wire as shown in Figure 2-5 to be directly plugged into the captive screw +12VDC connector of the Mini-DVI-WP units (see Figure 2-3). Make sure the polarity of the connection is correct. Insulate any exposed wire shields to prevent short circuits.

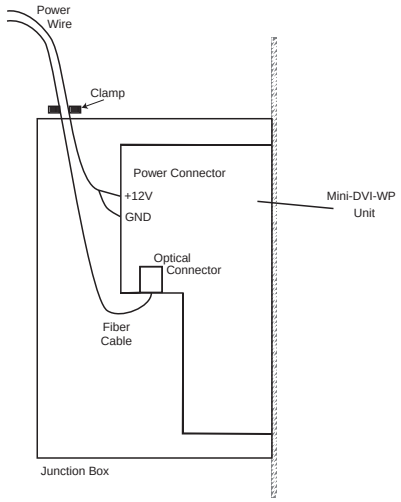

Figure 2-4
In-wall fiber/power cable installation

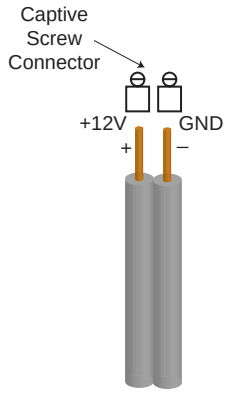

Figure 2-5
Power Connection

Note 1: During installation, the installer may need to connect the power supply output to an appropriate Listed NEC type cable before it is routed behind a wall. Simply routing the power supply output cable behind a wall will most likely not comply with applicable installation requirements. Unit should only be powered by a power source that is Listed (NEC) Class 2 or a Listed ITE Power Supply marked/rated as LPS or Limited Power Source.

Note 2: The installation shall be in accordance with the applicable provisions of the National Electrical Code ANSI/NFPA 70, Article 725 and the Canadian Electrical Code, Part 1, Section 16.

Note 3: The power supply shall not be permanently fixed to the building structure or similar structures.

Note 4: The power supply shall not be located within environmental air handling spaces or within the wall cavity.

Note 5: The power supply is to be located within the same vicinity as the A/V processing equipment in an ordinary location, Pollution Degree 2, secured to the equipment rack within the dedicated closet, podium or desk.

3.0 OPERATION

After the installation procedure is completed, the units are ready for operation. To operate the BCI Mini-DVI-WP units, simply apply power as indicated in the previous step. Note that the front panel LED status is described in Table 1.

Transmitter	Description
PWR/LINK	When power is connected, this LED turns RED. When power and optical link are on, this LED turns GREEN
SOURCE	When video source is properly connected, this LED turns GREEN
DISPLAY	When video display is properly connected, the LED turns GREEN

Receiver	Description
PWR/LINK	When power is connected, this LED turns RED. When power and optical link are on, this LED turns GREEN
SOURCE	When video source is properly connected, this LED turns GREEN
DISPLAY	When video display is properly connected, the LED turns GREEN

Table 1
TX and RX LED Indicators

4.0 MAINTENANCE AND TROUBLESHOOTING

4.1 Maintenance

There is no operator maintenance other then keeping the units clean.

4.2 Troubleshooting

If the BCI Mini-DVI-WP units do not operate properly after installation, check for possible cable breaks, loose connections, and incorrect cable connections. If a problem exists on the fiber link, please check your fiber connectors for improperly cleaned fiber cables and connectors. If problems persist that may be fiber related, contact BCI at 1-800-214-0222 for further assistance.

For electrical problems, perform the following troubleshooting procedures:

1. **If the POWER indicator is OFF, check for the following:**
   a. The line cord is plugged into the unit and your outlet has power.
2. **If the POWER indicator is ON, but the units are not working, check for the following:**
   a. Make sure the appropriate (Multimode) fibers are being used.
   b. Fiber and fiber connectors are not broken.
   c. For each unit, the transmit (TX) fiber is connected to the other unit's receiver (RX).

5.0 SPECIFICATIONS

Video

Resolution	Up to 1080p @ 60Hz or 1920x1200 @ 60Hz
Connector	DVI Female Plug
Protocol	HDCP/DDC Capable

Optical

Fiber Type	Multimode
Number of Fibers	1
Connector	SC

Physical

Dimension (H x W x D)	4.50" x 2.75" x 1.2"
Power Level (max.)	+12VDC @ 0.5A (in-wall)
Power Wiring Distance	>200 ft. when 22-AWG wire is used with 12VDC
Operating Temperature	0 to +50°C
Humidity	0 to 95% RH, non-condensing

6.0 SERVICE PROCEDURE

6.1 Replacement Policy

Standard products found defective on arrival (DOA) will be replaced, based on availability, within 24 to 48 hours anywhere in the U.S. Please call Customer Service at **800-214-0222** for information.

6.2 Return/Repair Service

The BCI Mini-DVI-WP System contains no user serviceable components. If you have a problem with your unit, please contact the Customer Service Department. To facilitate our return/repair processing please contact Broadata Communications, Inc. to obtain a Return Material Authorization (RMA). Please include the following information:

- Product model number
- Serial Number
- Complete description of problem
- Hardware installation description

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(310) 530-1416
(310) 530-5958 (Facsimile)
e-mail: CustomerService@Broadatacom.com
Website: www.broadatacom.com

7.0 LIMITED WARRANTY

Broadata Communications, Inc. (BCI) warrants, for a period of one year from date of shipment, each product sold shall be free from defects in material and workmanship. BCI will correct, either by repair, or at BCI's election, by replacement, any said products that in our sole discretion prove to be defective and are returned to the manufacturing location within 30 days after such defect is ascertained. All warranties are limited to defects arising under normal use and do not include malfunctions or failure resulting from misuse, abuse, neglect, alterations, electrical power problems, usage not in accordance with product instructions, improper installation, or damage determined by BCI to have been caused by the Buyer or repair made by a third party. Limited warranties granted on products are to the initial customer end-user and are not transferable. OUR LIABILITY UNDER THIS WARRANTY SHALL IN ANY CASE BE LIMITED TO THE INVOICE VALUE OF THE PRODUCT SOLD AND BCI SHALL NOT BE LIABLE TO ANYONE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING FROM THE USE OF ITS PRODUCTS OR THE SALE THEREOF. We make NO WARRANTY AS TO THE MERCHANTABILITY OF ANY GOODS, OR THAT THEY ARE FIT FOR ANY PARTICULAR PURPOSE OR END APPLICATION NOR DO WE MAKE ANY WARRANTY, EXPRESSED OR IMPLIED OTHER THAN AS STATED ABOVE.

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